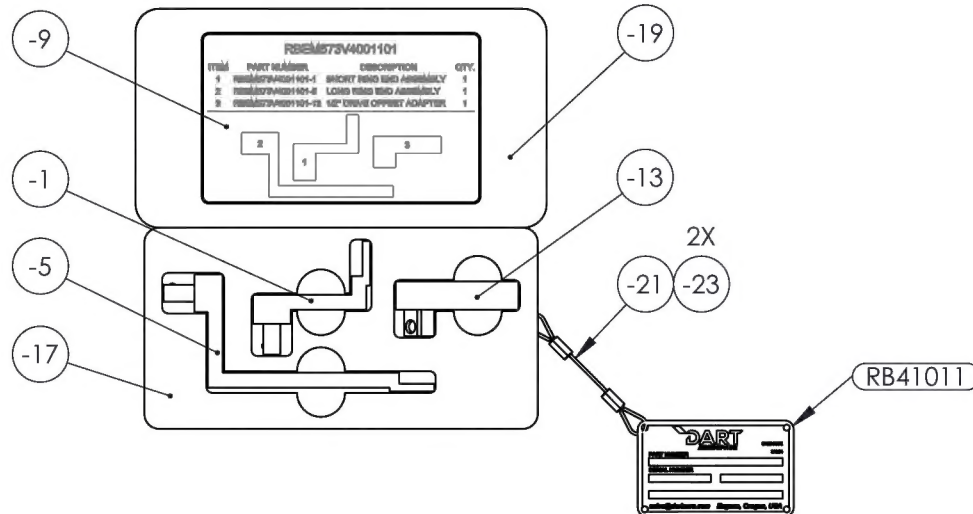


This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		RELEASED FOR PRODUCTION.	5/13/2016	DPD	JAG
2	17-0008	-3 CH'D ENGRAVE NOTE WAS "RBEM673V4001101-3" IS "RBEM673V4001101-1". -7 CORRECTED SPELLING WAS TORQUE IS TORQUE. -17 & -19 CH'D MATERIAL & VENDOR WAS Y20, BLACK (I.L.R. SPECIALTY) IS ETHAFOAM 220, BLACK (CASE SOLUTIONS). -17 DELETED DIM 4X R.19, ADDED DIM 4X 45°, 4X .50. -19 DELETED DIM 4X R.25, ADDED DIM 4X 30°, 4X .75. -21 & -23 ADDED.	4/14/2017	RJC	JAG



ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
	X		-1	1	SHORT RING END ASSEMBLY			2
	1		-3		SHORT RING END	4140/4142		3
X			-5	1	LONG RING END ASSEMBLY			4
1			-7		LONG RING END	4140/4142		5
			-9	1	CONTENTS PLACARD	PLASTIC		6
1	1	B/O	-11		PLUNGER	S.S.	Ø.12 NOSE X Ø.157 BODY X .23 OAL (MCMASTER-CARR #84895A71)	2 & 4
		B/O	-13	1	1/2" DRIVE OFFSET ADAPTER	STEEL	1/2" DRIVE OFFSET ADAPTER (FACOM #S.234, ULTIMATE GARAGE #S.234)	1
		B/O	-15	1	CASE	PLASTIC	PELICAN #APP-1060-E	N/S
		B/O	-17	1	BOTTOM FOAM	ETHAFOAM 220, BLACK	1.40 X 4.19 X 8.19 (CASE SOLUTIONS)	7
		B/O	-19	1	TOP FOAM CUSHION	ETHAFOAM 220, BLACK	.83 X 4.56 X 8.56 (CASE SOLUTIONS)	8
		B/O	-21	1	LANYARD	COATED STEEL	Ø1/16 X 3 (CARR LANE #CL-2-C)	1
		B/O	-23	2	FERRULE	ALUMINUM	Ø1/16 X 3/8 (MCMASTER-CARR #3896T31)	1
		B/O		1	PLACARD	ALUMINUM	RB41011	1
ASSY -5	ASSY -1							

**NOTE:**  
REF. AIRBUS T/N: M673V4001101.

**DART AEROSPACE**

**TITLE**  
TAIL SERVO CONTROL TORQUE WRENCH

**DWG NO.**  
RBEM673V4001101

**REV**  
2

**MAT'L**  
REAR TREAT FINISH SPEC

**DRAWN BY:** DUERFELDT  
**CHECKED:** CLOUGH  
**OPPS APPR:** ANDERSON  
**QA APPR:** LINDSAY  
**APPROVED:** GILBERT

**UNLESS OTHERWISE SPECIFIED**  
DIMENSIONS ARE IN INCHES  
.XXX ± .005 FRACTIONS ± 1/8  
.XX ± .01 ANGLES ± .5°  
.X ± .1 SURFACES = 125°

1. BREAK ALL SHARP EDGES  
.015 x 45° OR .015R  
2. DIMENSIONAL LIMITS APPLY AFTER PLATING  
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

**USED ON MODEL**  
H175

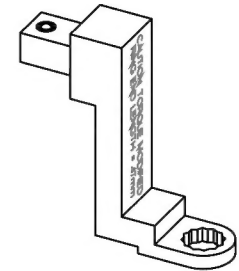
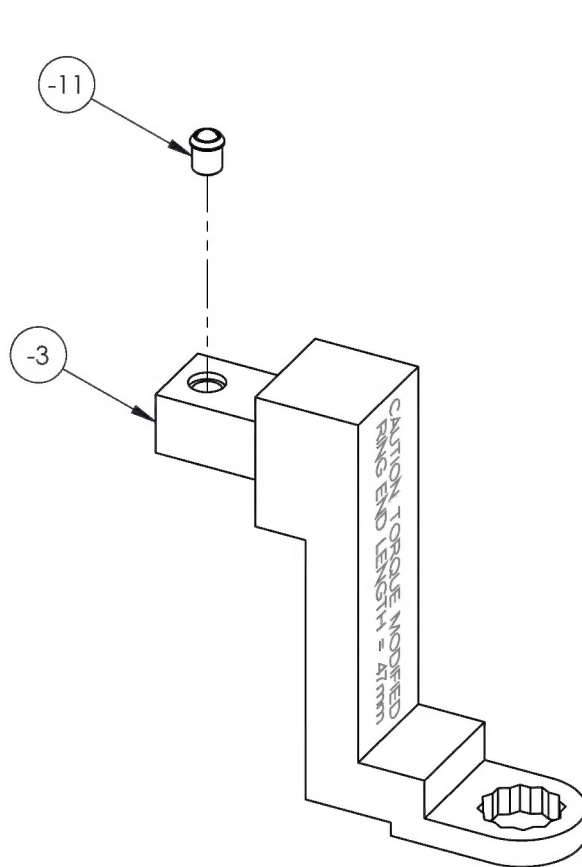
**SCALE** 1:4

**DATE** 3/2/2016

**SHEET** 1 OF 8

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
				APPROVED



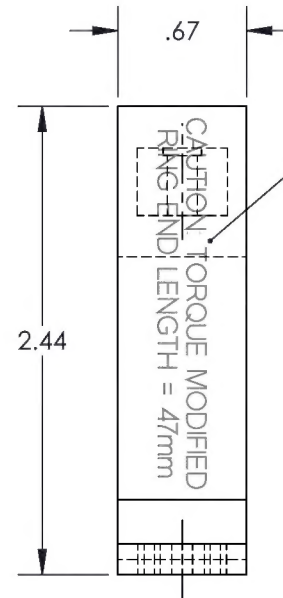
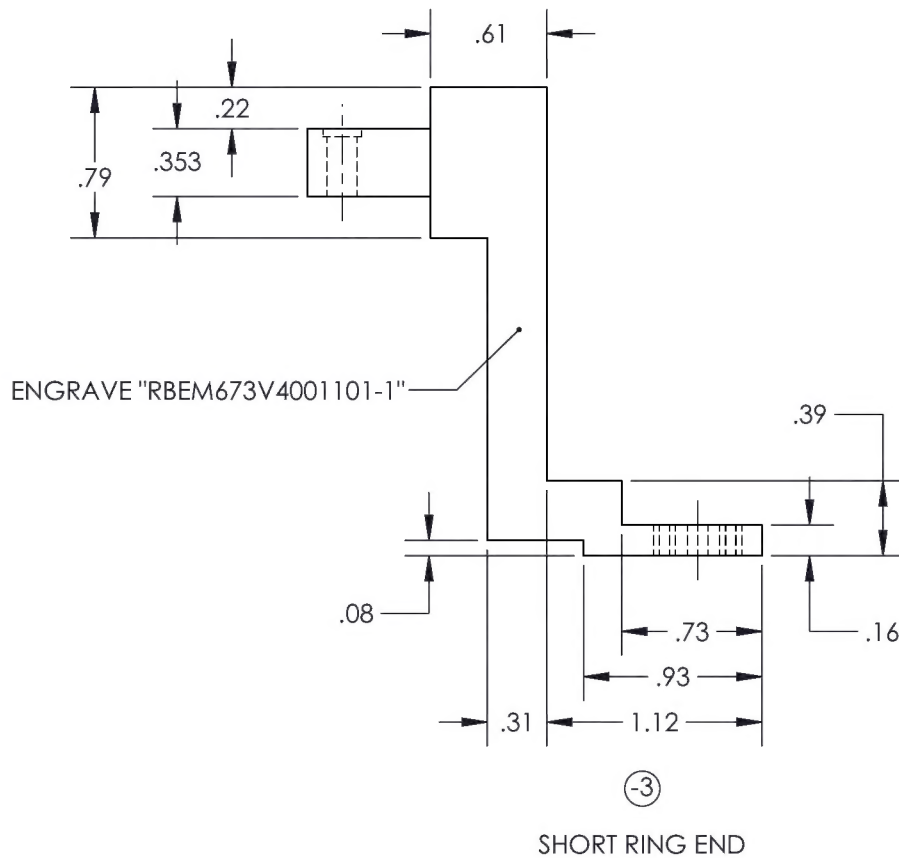
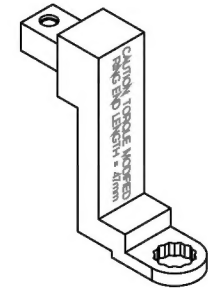
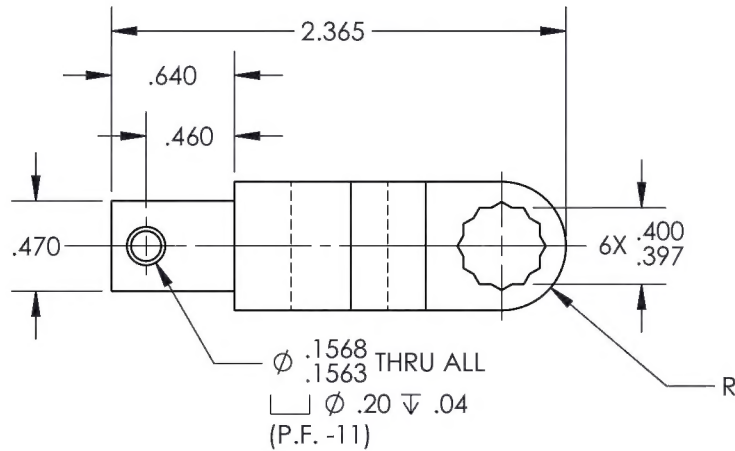
(-1)

SHORT RING END ASSEMBLY

<b>DART AEROSPACE</b>	
TITLE TAIL SERVO CONTROL TORQUE WRENCH	
DWG NO. RBEM673V4001101-1	REV 2
MAT'L	UNLESS OTHERWISE SPECIFIED
TREAT	DIMENSIONS ARE IN INCHES
FINISH	.XXX ± .005 FRACTIONS ± 1/8
SPEC	.XX ± .01 ANGLES ± .5°
	.X ± .1 SURFACES = 125° ✓
DRAWN BY: DUERFELDT	1. BREAK ALL SHARP EDGES
CHECKED: CLOUGH	.015 x 45° OR .015R
OPPS APPR: ANDERSON	2. DIMENSIONAL LIMITS APPLY
QA APPR: LINDSAY	AFTER PLATING
APPROVED: GILBERT	3. INTERPRET DIM AND TOL PER
	ASME Y14.5M-2009
	USED ON MODEL
	H175
SCALE 1:1	DATE 3/2/2016
	SHEET 2 OF 8

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

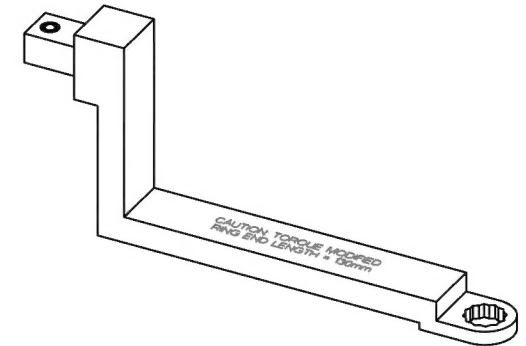
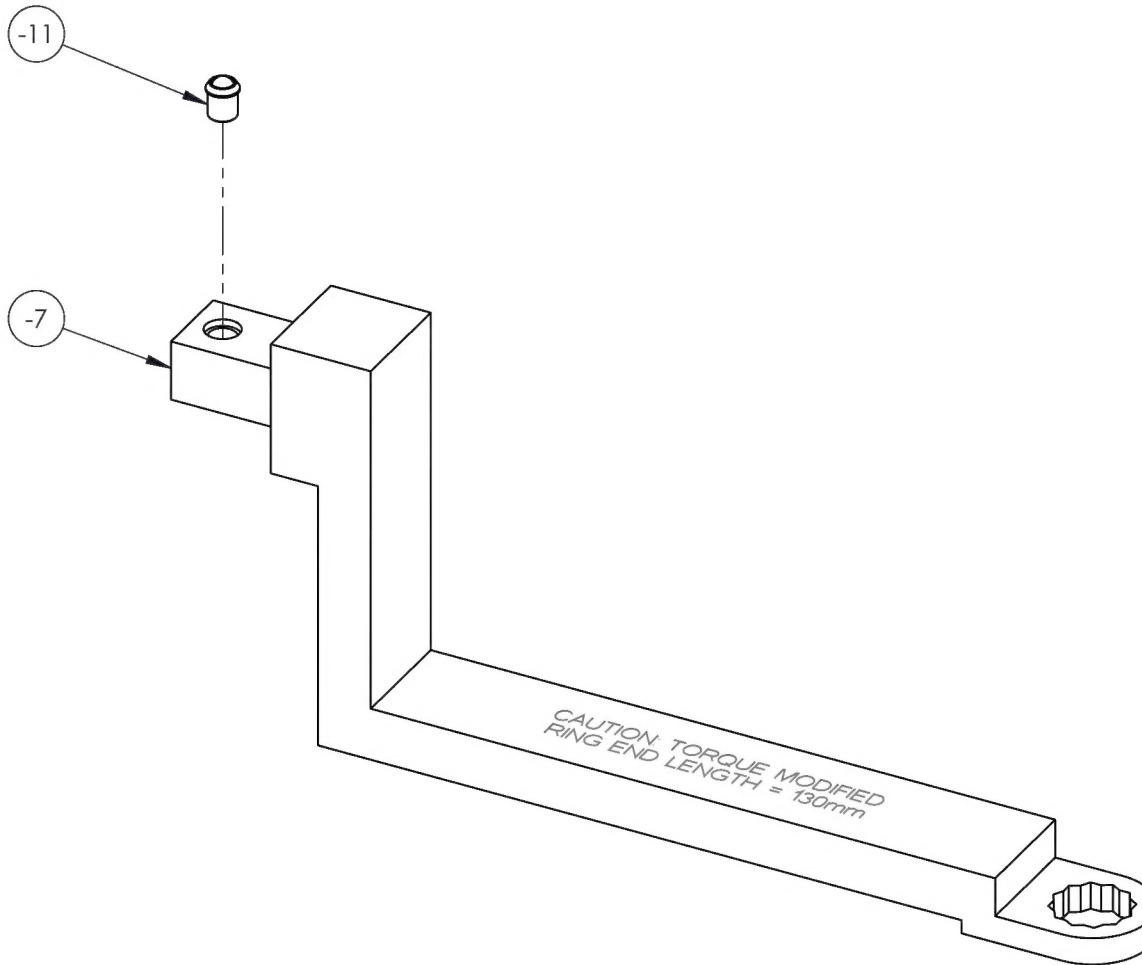
REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0008	-3 CH'D ENGRAVE NOTE WAS "RBEM673V4001101-3" IS "RBEM673V4001101-1".	4/14/2017	RJC	JAG



<b>DART AEROSPACE</b>	
TITLE TAIL SERVO CONTROL TORQUE WRENCH	
DWG NO. RBEM673V4001101-3	REV 2
MAT'L 4140/4142	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT RC 38-42	.XXX ± .005 FRACTIONS ± 1/8
FINISH ZINC PLATE	.XX ± .01 ANGLES ± 5°
SPEC ASTM B633 TYPE I SC 2	.X ± .1 SURFACES = 125
DRAWN BY: DUERFELDT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: CLOUGH	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	H175
SCALE 1:1	DATE 3/2/2016
SHEET 3 OF 8	

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
				APPROVED

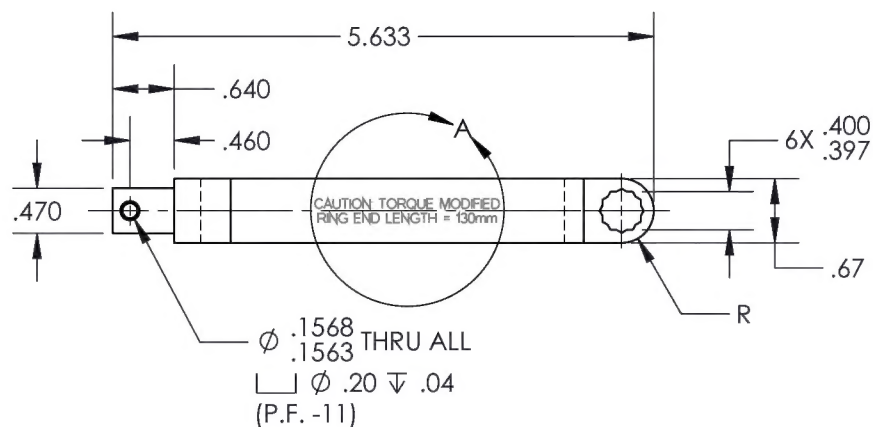


(-5)

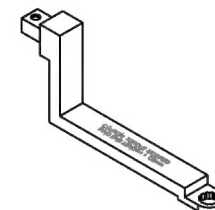
LONG RING END ASSEMBLY

<b>DART AEROSPACE</b>	
TITLE TAIL SERVO CONTROL TORQUE WRENCH	
DWG NO. RBEM673V4001101-5	REV 2
MAT'L	UNLESS OTHERWISE SPECIFIED
HEAT	DIMENSIONS ARE IN INCHES
TREAT	.XXX ± .005 FRACTIONS ± 1/8
FINISH	.XX ± .01 ANGLES ± .5°
	.X ± .1 SURFACES = 125° ✓
SPEC	1. BREAK ALL SHARP EDGES
DRAWN BY: DUERFELDT	.015 x 45° OR .015R
CHECKED: CLOUGH	2. DIMENSIONAL LIMITS APPLY
OPPS APPR: ANDERSON	AFTER PLATING
QA APPR: LINDSAY	3. INTERPRET DIM AND TOL PER
APPROVED: GILBERT	ASME Y14.5M-2009
	USED ON MODEL
	H175
SCALE 1:1	DATE 3/2/2016
	SHEET 4 OF 8

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0008	-7 CORRECTED SPELLING WAS TORGE IS TORQUE.	4/14/2017	RJC	JAG

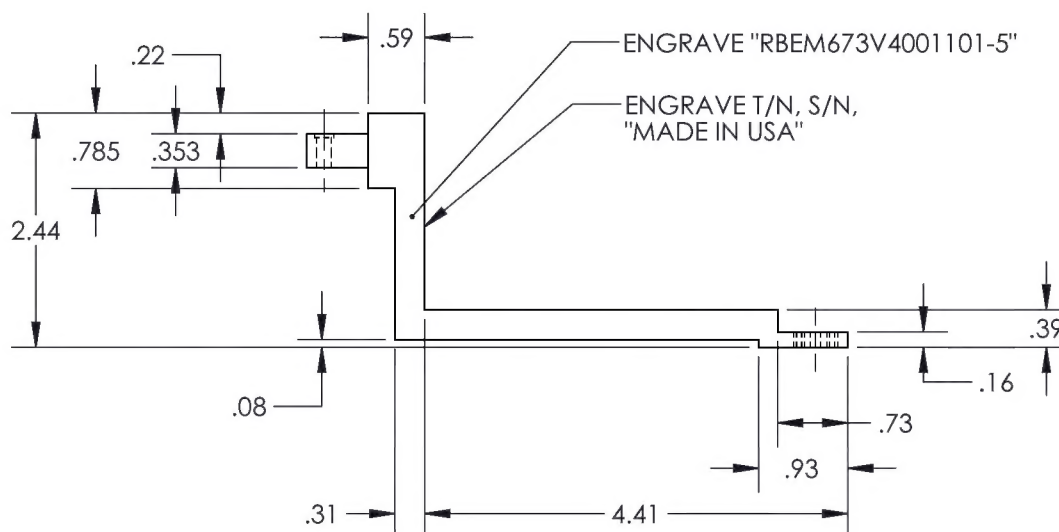


MACHINE ENGRAVE-  
AS SHOWN, .10 TEXT



CAUTION: TORQUE MODIFIED  
RING END LENGTH = 130mm

DETAIL A  
SCALE 1 : 1



⑦

LONG RING END



TITLE  
TAIL SERVO CONTROL TORQUE WRENCH

DWG NO. RBEM673V4001101-7

REV	2
-----	---

MAT'L	4140/4142
-------	-----------

HEAT TREAT RC 38-42

TREAT	RS SS 12
FINISH	ZINC PLATE

SPEC	ASTM B633 TYPE I SC 2
------	-----------------------

DRAWN BY:	DUERFELDT
-----------	-----------

CHECKED:	CLOUGH
----------	--------

OPPS APPR:	ANDERSON
------------	----------

QA APPR:	LINDSAY
----------	---------

APPROVED:	LINDSAT
	GILBERT

UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES  
XX + .005 FRACTIONS ± 1/8

.XXX ± .005	FRACTIONS ± 1/8
.XX ± .01	ANGLES ± .5°
X ± .1	SURFACES ± .125

.X ± .1 SURFACES = 125 ✓  
1. BREAK ALL SHARP EDGES

1. BREAK ALL SHARP EDGES  
.015 x 45° OR .015R

2. DIMENSIONAL LIMITS APPLY AFTER PLATING

3. INTERPRET DIM AND TOL PER  
ASME Y14.5M-2009

ASME Y14.5M-2009
USED ON MODEL

USED ON MODEL
H175

SCALE	1:2
-------	-----

DATE	3/2/2016
------	----------

SHEET 5 OF 8

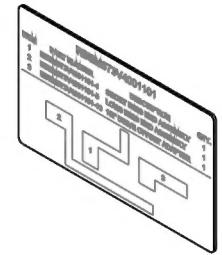
This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
				APPROVED

BLACK BACKGROUND WITH  
WHITE LINES AND LETTERS

4X R .13

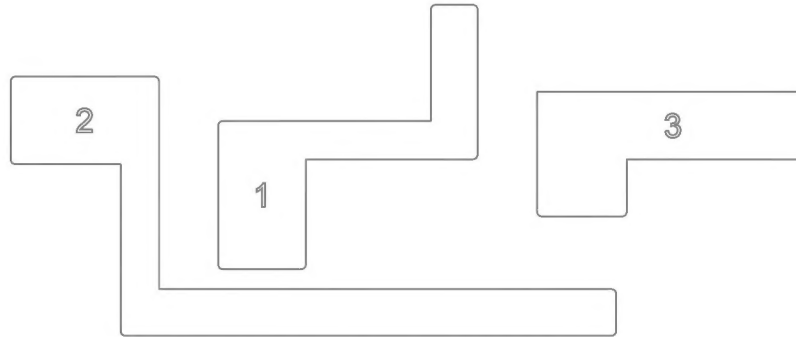
.06



RBEM673V4001101

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	RBEM673V4001101-1	SHORT RING END ASSEMBLY	1
2	RBEM673V4001101-5	LONG RING END ASSEMBLY	1
3	RBEM673V4001101-13	1/2" DRIVE OFFSET ADAPTER	1

3.50



5.75

NOTE:  
USE PDF.



TITLE  
TAIL SERVO CONTROL TORQUE WRENCH

DWG NO. RBEM673V4001101-9 REV. 2

MAT'L PLASTIC		UNLESS OTHERWISE SPECIFIED	
HEAT TREAT		DIMENSIONS ARE IN INCHES	
FINISH		.XXX ± .010 FRACTIONS ± 1/8	
SPEC		.XX ± .03 ANGLES ± 1°	
DRAWN BY: DUERFELDT		.X ± .1 SURFACES = 125°	
CHECKED: CLOUGH		1. BREAK ALL SHARP EDGES	
OPPS APPR: ANDERSON		.015 x 45° OR .015R	
QA APPR: LINDSAY		2. DIMENSIONAL LIMITS APPLY	
APPROVED: GILBERT		AFTER PLATING	
SCALE 1:1		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DATE 3/2/2016		USED ON MODEL	
SHEET 6 OF 8		H175	

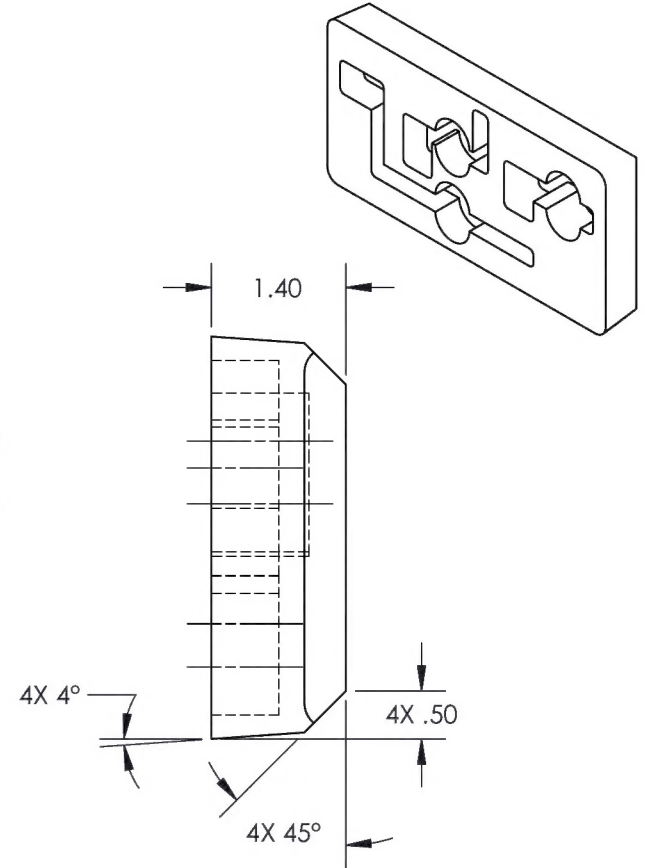
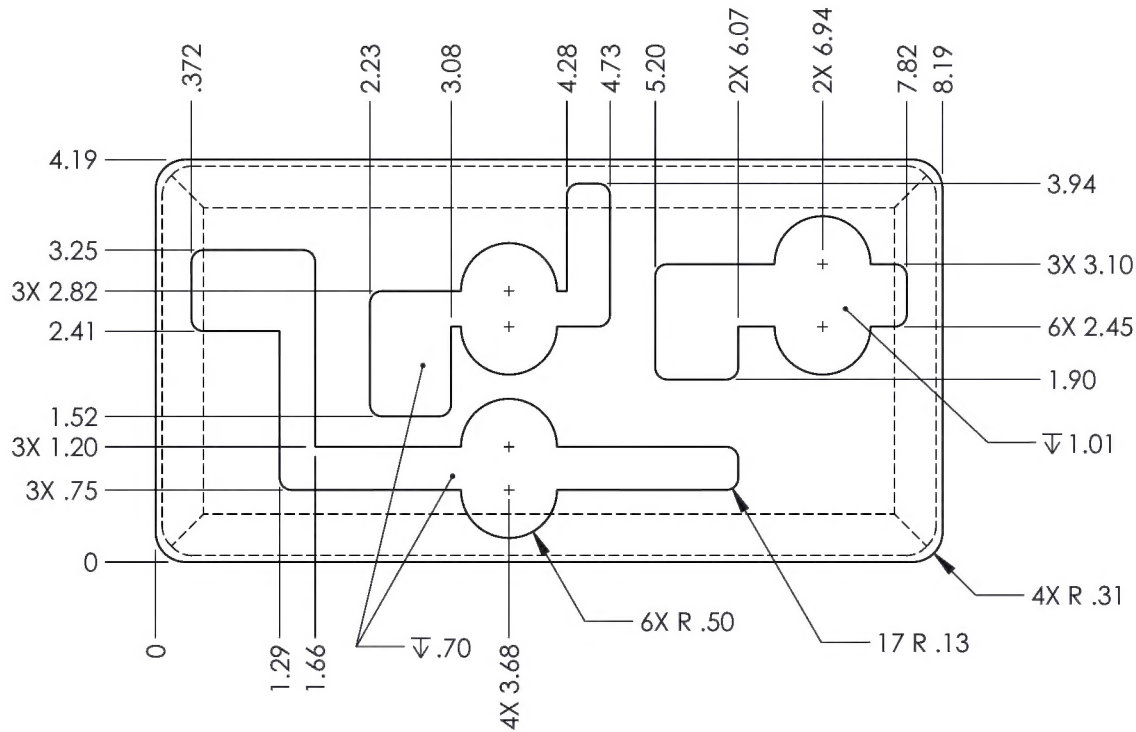
(-9)

CONTENTS PLACARD



This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0008	-17 DELETED DIM 4X R.19, ADDED DIM 4X 45°, 4X .50. CH'D MATERIAL & VENDOR WAS Y20, BLACK (I.R. SPECIALTY) IS ETHAFOAM 220, BLACK (CASE SOLUTIONS).	4/14/2017	RJC	JAG



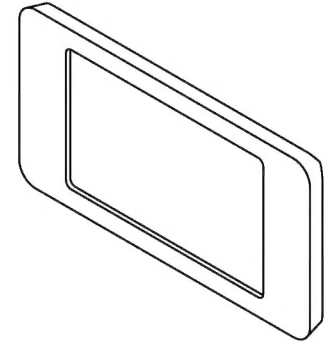
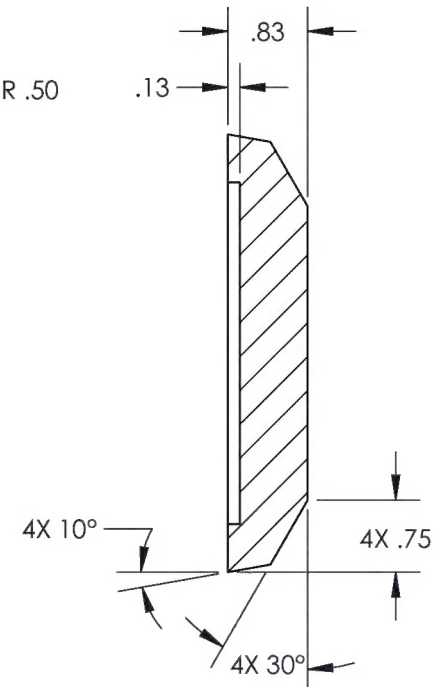
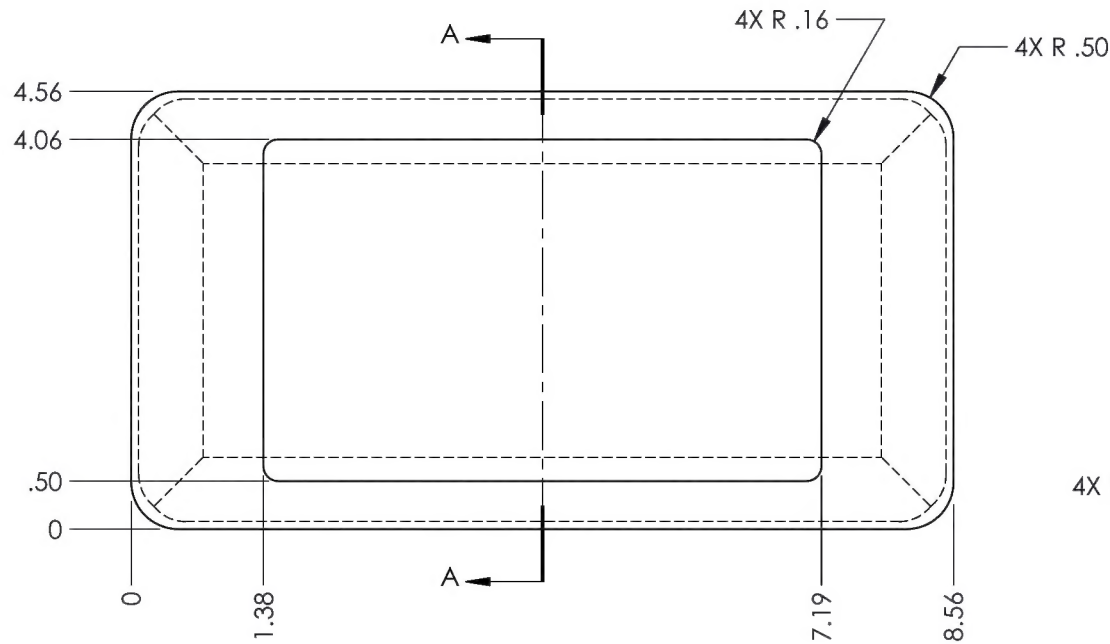
(-17)

BOTTOM FOAM

<b>DART AEROSPACE</b>	
TITLE TAIL SERVO CONTROL TORQUE WRENCH	
DWG NO. RBEM673V4001101-17	REV 2
MAT'L ETHAFOAM 220, BLACK	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
.XXX ± .010 FRACTIONS ± 1/8	
.XX ± .03 ANGLES ± 1°	
.X ± .1 SURFACES = 125°	
SPEC	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY: DUERFELDT	USED ON MODEL
CHECKED: CLOUGH	H175
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	
APPROVED: GILBERT	
SCALE 1:2	DATE 3/2/2016
SHEET 7 OF 8	

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0008	-19 DELETED DIM 4X R.25, ADDED DIM 4X 30°, 4X .75, CH'D MATERIAL & VENDOR WAS Y20, BLACK (I.R. SPECIALTY) IS ETHAFOAM 220, BLACK (CASE SOLUTIONS),	4/14/2017	RJC	JAG



SECTION A-A

(-19)

TOP FOAM CUSHION

<b>DART AEROSPACE</b>	
TITLE TAIL SERVO CONTROL TORQUE WRENCH	
DWG NO. RBEM673V4001101-19	REV 2
MAT'L ETHAFOAM 220, BLACK	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
.XXX ± .010 FRACTIONS ± 1/8	
.XX ± .03 ANGLES ± 1°	
.X ± .1 SURFACES = 125°	
SPEC	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY: DUERFELDT	USED ON MODEL
CHECKED: CLOUGH	H175
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	
APPROVED: GILBERT	
SCALE 1:2	DATE 3/2/2016
SHEET 8 OF 8	